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Chordify team members publish an article about subjectivity in chord recognition

Chordify's best and brightest are constantly researching new ways to improve our chord recognition algorithms. They work in a field called music information retrieval (MIR): which is a scientific area that combines disciplines like musicology, artificial intelligence, and informatics.

Recently published in Journal of New Music Research, the article "Annotator subjectivity in harmony annotations of popular music," questions whether experts listening to music can agree over the chords they hear. Turns out that's not as simple as it sounds.



Added harmonies

The problem of recognizing which chords are played in a musical recording is not new. For instance, when hearing back their song "A Hard Day's Night," Paul McCartney, George Harrison, and Gary Moore (of the Beatles) couldn't agree over the opening chords. The article puts forth that this ambiguity may be due to the sounds added by electronic production techniques. In other words, your phasers, distortions, flangers, and choruses are adding sounds that create new harmonies, and thus make new chords.

Number crunching

Scientists wouldn't be scientists if they didn't do some number crunching. So here we go. The dataset, called the "Chordify Annotator Subjectivity Dataset" (CASD) consists of 50 songs, which are all provided with chord labels by 4 musicians. These annotators have between 15 and 25 years of experience, and are highly educated listeners. They took 20 minutes and 25 seconds on average to transcribe a song; and they rated the difficulty of the songs with a 2.1 average, on a scale from 1 to 5 (where 5 is the most difficult). Finally, in total 290 unique chords were used. If you want to read the full scope of the study, you can get the article here.

No general truth

In conclusion, the article states that the musicians in the study agreed only 76 percent of the time, over simple chords. And that's not even talking about complex experimental jazz harmonies. When it comes to those, the level of agreement went down to a mere 59 percent. So they argue that the idea of a general 'truth' is hard to keep up, even when it comes to chords.

ABOUT CHORDIFY

[Dutch version below]

Chordify is an online music service, made for and by music enthusiasts, that transforms music from YouTube, Deezer, SoundCloud, or your private collection into chords. The service automatically recognizes chords from the audio signal, and aligns them to the music in a simple and intuitive player for guitar, piano, and ukulele.

The Chordify web app has been up and running since January 2013. Since then, the company has grown steadily and organically, in total welcoming over 100 million unique visitors to the platform. To date, 8 million songs have

been chordified by users and 1,400,000 people have registered to the service.

Over the course of its existence Chordify received a lot of international acclaim, winning the Dutch Pitch Session at the Northside Festival in New York in 2014 and the San Francisco MusicTech Summit Startup competition in 2015. They were also selected to pitch during The Next Web Conference in New York and were showcased during the SXSW Festival in Austin, TX.

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Chordify is een online muziekservice, die muziek van YouTube, Deezer, SoundCloud of jouw privé collectie omzet in akkoorden. De service herkent de akkoorden uit de muziek automatisch en zet ze op muziek in een simpele en intuïtieve muziekspeler.

De Chordify WebApp is al sinds januari 2013 online. Sindsdien is het bedrijf gestaag en organisch gegroeid, en heeft het meer dan 100 miljoen unieke bezoekers mogen verwelkomen. Tot op de dag van vandaag zijn er al 8 miljoen liedjes gechordified door de gebruikers en hebben zich 1,400,000 mensen geregistreerd bij de service.

In de jaren dat Chordify bestaat heeft het bedrijf veel internationale waardering gekregen, wat resulteerde in het winnen van de Dutch Pitch Session bij het Northside Festival in New York in 2014 en de San Francisco MusicTech Summit Startup competitie in 2015. Chordify was ook geselecteerd om te pitchen tijdens de Next Web Conference in New York en presenteerde zichzelf tijdens de SXSW Festival in Austin, TX.

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